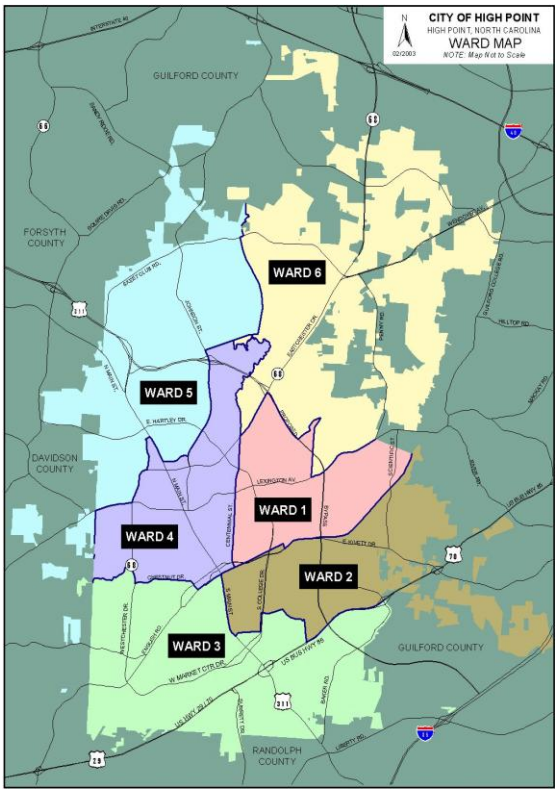
CITIZEN UNIVERSITY
Understanding Planning, Development and Building in High Point

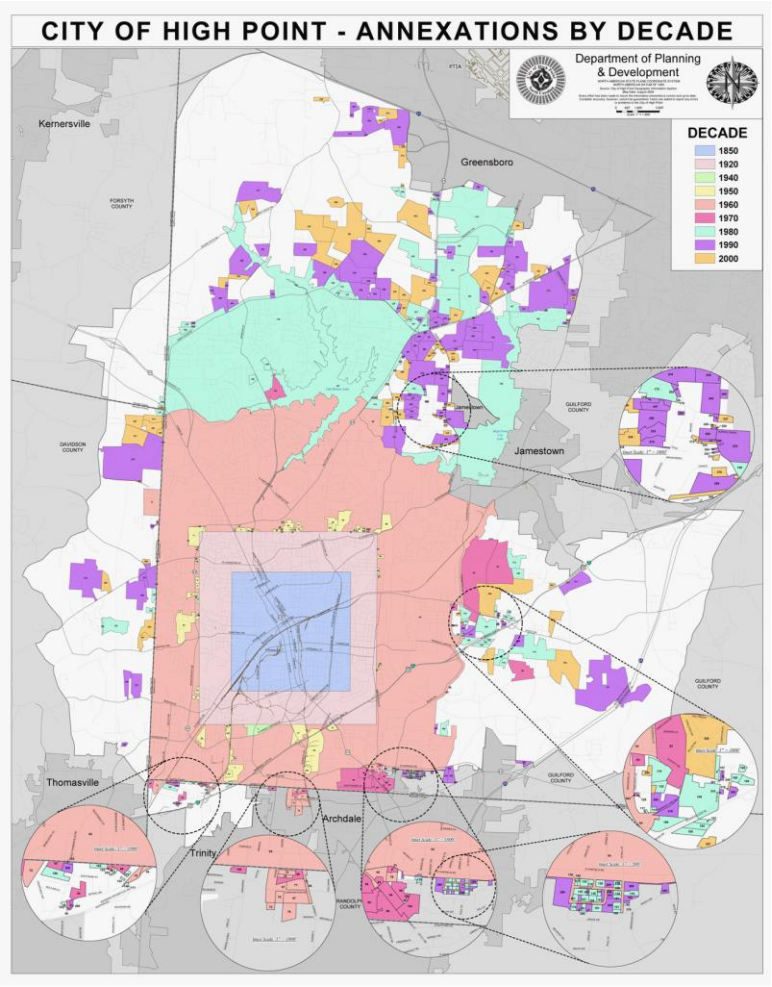
Introduction to GIS



People use maps every day to find out where things are located, and to make complex information easier to understand. The City of High Point uses its computer-based Geographic Information System, or GIS, as a way to store, retrieve, analyze, and display data about the city. It is more helpful than a regular map, because it can be accessed from your computer, displays only the information you want, and includes a variety of information about each location you want to examine. For example, do you want to know who your City Council representative is? GIS has the boundaries of all the City's wards stored in its database, which you can pull up on a map like the one shown to the left. But the areas displayed (called "layers") also contain more detailed information about what is being shown, like the name of the City Council member who represents your ward. By storing a lot of information about the city, GIS can help answer many questions. Want to know how your property, and any surrounding properties, might be developed in the future? Do you want to find out whether a property has historic features, streams, walking trails, large stands of trees, or very steep terrain? GIS can help answer these questions.

GIS is a particularly effective tool for "real world" data analysis, because it helps people understand the relationships between different types of information. Sometimes the information is for a single point in the city, like the street address. In other cases the features are more complex and cover a wider area, such as a zoning district. GIS allows the layering of these two kinds of data on top of each

other, so you can determine the zoning district for a particular address. Although this is a simple example, by providing a user-friendly model of our ever-changing geographic, physical, and biological environment, GIS allows people to identify and analyze a vast amount of data collected from a variety of sources, such as satellite imagery, aerial photography, planning studies, site surveys and building permits. This allows planners, or anyone familiar with GIS, to interpret this information in order to understand patterns and trends.



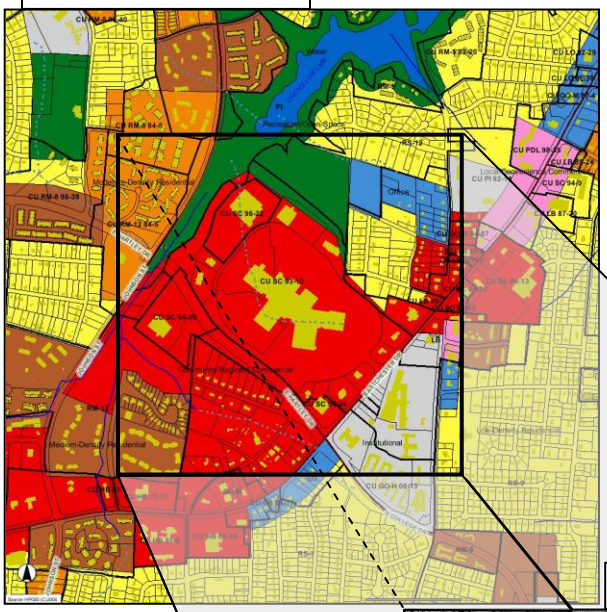
Here is another example. By identifying the city's annexations over time, we can see how the city has grown historically. Although the map to the right only shows information about annexations, by using GIS we can include additional layers, such as one showing subdivisions, which might further explain why these areas were annexed. We can also view aerial photography from different years to see the impact annexation has had on the area. This identifies patterns that can help plan for how the city might grow in the future. The map to the right shows annexations at a scale that includes the entire city, but by using GIS, we can zoom in closer to investigate a particular area. Even more information can then be retrieved and analyzed from the data that is contained within each layer, such as the acreage of the area annexed and the date it was annexed. This example highlights not only how GIS can provide information about the characteristics of a selected location, but also how it can be updated with new information as it is collected over time.

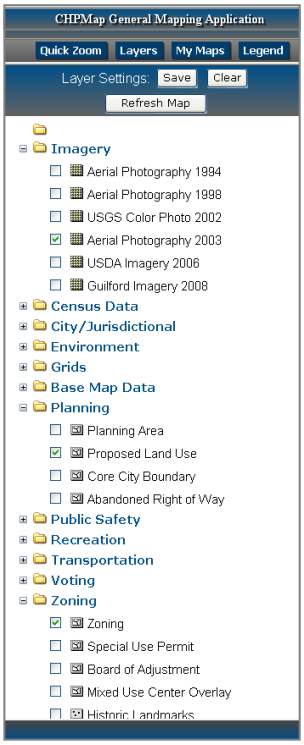
"CHPMap" is the City's primary GIS tool, for both its employees and the public. It allows many people to access a wide variety of GIS information at the same time. An illustration showing examples of CHPMap layers is found on the next page. You can access the internet-based CHPMap program through the Planning and Development Department's website at http://www.high-point.net/plan. The link for CHPMap is located on the left hand side of the screen near the bottom of the "Quick Links." However, not all of the City's GIS information is accessible through CHPMap, just some of the most commonly used layers. If you would like information on something that is not included on CHPMap, we might have it, but you'll need to contact us. In addition, the City works with surrounding jurisdictions to share GIS information, so we may be able to provide limited information about areas adjacent to High Point.

For additional information about GIS and the information it can provide, e-mail the Citizen University faculty using the link on our home page.

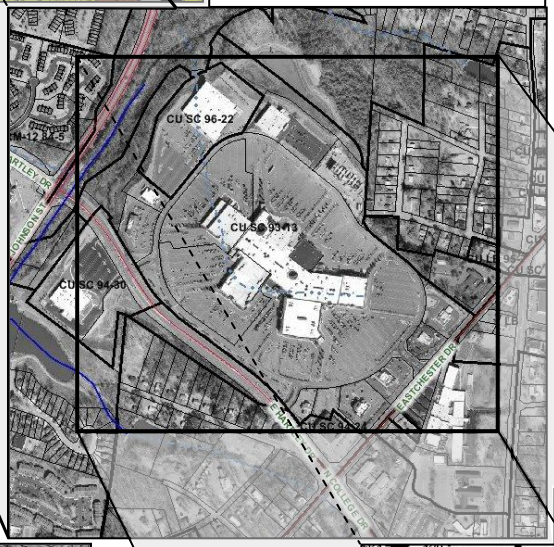
The examples below show how a place you might see every day (Oak Hollow Mall) looks when viewed with different layers on a GIS map, in this case CHPMap layers for: 1. Proposed Land Use, 2. Aerial Photography (2003), and 3. Zoning.

1. Proposed Land Use





2. Aerial Photography (2003)



The 2003 Aerial Photo from CHPMap on the right shows how much the Oak Hollow Mall site has changed when compared to the 1994 Aerial Photo shown below.

3. Zoning